



# Maylands Green Energy Project



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# What is the LCDI?



- A delivery vehicle created to address market failure
- Public funded to overcome early stage development risks in low carbon developments
- Mitigate barriers and create solutions the market can invest in
- Spreading the risk across a portfolio of projects
- Northstowe and Maylands first of several LCDI projects
- A new Community Interest Company enterprise created by Renewables East in 2009



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# RENEWABLES EAST

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- Private, independent company, not for profit
- Established Oct 2003, grant from EEDA
- Turnover £440K 04/05
- Invested 2.8m 09/10 (inc £1m stock)
- Allocated c£6m 10/11
- Two company objectives
- Offices at UEA, Cambridge and Peterborough
- Team of 24

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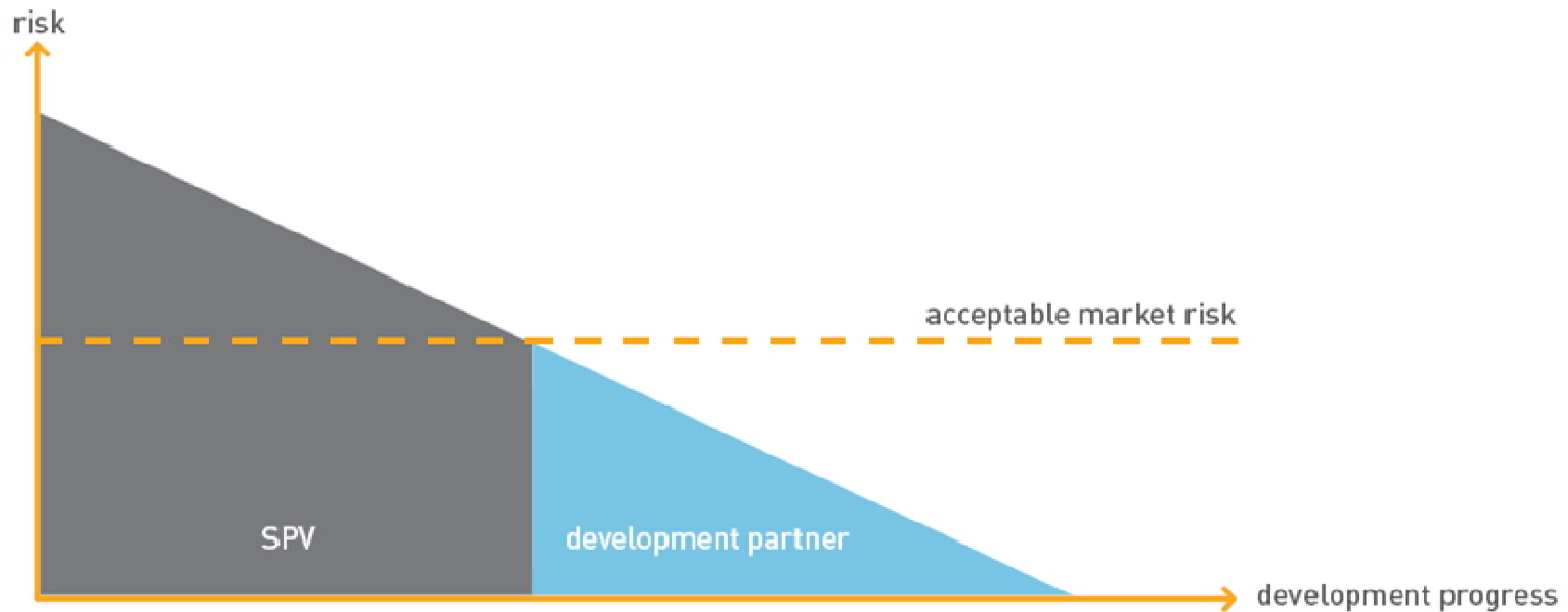
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# What will we do

## De-risking developments



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# Partnership Solution



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# LCDI Adding Value Activities



- Understanding the industry
- Bulk Procurement
- Planning issues
- Energy Supply contracts
- Commercial partner selection
- ESCO / SPV creation
- Experience in securing/ enabling c£45m
- Public funded
- Any profits invested in the community interest



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# Maylands opportunity



- Bring forward a low carbon clean, and green business park
- Existing funding commitments from Dacorum Borough Council and ERDF
- Phased delivery approach:
  - Phase 1a Electricity – solar PV technology
  - Phase 1b Heat – potentially Biomass CHP, further technical studies to be completed
- Take advantage of the new Feed In Tariffs (FIT) for smaller scale renewable energy systems
- Also Renewable Heat Incentives (RHI) when introduced



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# PV at Maylands



- Installation of roof mounted PV panels preferred
- LCDI will establish a SPV and/or ESCO to finance the supply, install, maintenance, and manage energy sales and billing
- Benefits to businesses:
  - No capital outlay to the building owner/tenant for the installation of PV panels
  - Low carbon electricity, reduced carbon footprint, increased supply chain profile
  - Guaranteed cost of electricity below market rates index linked for next 25 years
  - Reduced exposure to future electricity price rises
  - Creating and sustaining local businesses and jobs
  - Enhanced profile for re-branded Maylands



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# LCDI and low carbon heat at Maylands



- Potentially a biomass combined heat and power (CHP) plant
- Establish a district heating network within Maylands
- Electricity distributed via private wire or return to the electricity grid
- Take advantage of Renewable Obligation Certificates (ROCs) and / or the new Renewable Heat Incentives (RHI)
- Cost of heat below market rates
- Security of supply
- Phased approach to align with future growth of Maylands
  
- LCDI will establish a SPV and ESCO to finance the supply, install, maintenance, and energy and heat sales and bill management
- Currently looking to develop relationships to understand heat demand



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# Other activities



- Local Development Order / Planning policy statement for renewable energy
- Deliver business assists to SMEs - focus on market barriers for renewable energy
- Meet with local PV developers and installers
  - BeBa Energy (Maylands)
  - South-facing (Hemel Hempstead)
  - Chelsfield Solar (Hemel Hempstead)
  - RES / PV Systems (Kings Langley)
  - Others?



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# Solar Photovoltaic (PV)



- Generates electricity from sun
- Relatively simple technology
- Proven and investible
- Complicated legal, insurance and financial issues



- Roof mounted arrays
- Ground mounted arrays



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# Feed In Tariffs (FIT)



- Also referred to as the Clean Energy Cashback
- Commenced 1<sup>st</sup> April 2010
- Tariff rates vary depending on technology type and size (up to 5MW for PV)
- Two levels of tariffs: generation tariff and export tariff
- Third value stream in offsetting electricity imports
- Tariffs guaranteed for 25 years for PV
- Anticipated to stimulate 1.8m new installations by 2020.
- Highest tariff rates secured for installations completed by 31<sup>st</sup> March 2012
- Clear opportunity for early movers
- You will be paying for it



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# Generation tariffs (April 10 to March 2013)



Technology	Scale	Tariff level for new installations in period (p/kWh) (NB tariffs will be inflated annually)			Tariff lifetime (years)
		Year 1: 1/4/10 - 31/3/11	Year 2: 1/4/11 - 31/3/12	Year 3: 1/4/12 - 31/3/13	
Anaerobic digestion	≤500kW	11.5	11.5	11.5	20
Anaerobic digestion	>500kW	9.0	9.0	9.0	20
Hydro	≤15 kW	19.9	19.9	19.9	20
Hydro	>15-100 kW	17.8	17.8	17.8	20
Hydro	>100 kW-2 MW	11.0	11.0	11.0	20
Hydro	>2 MW – 5 MW	4.5	4.5	4.5	20
MicroCHP pilot*	≤2 kW*	10*	10*	10*	10
PV	≤4 kW (new build)	36.1	36.1	33.0	25
PV	≤4 kW (retrofit)	41.3	41.3	37.8	25
PV	>4-10 kW	36.1	36.1	33.0	25
PV	>10-100 kW	31.4	31.4	28.7	25
PV	>100kW-5MW	29.3	29.3	26.8	25
PV	Stand alone system	29.3	29.3	26.8	25
Wind	≤1.5kW	34.5	34.5	32.6	20
Wind	>1.5-15kW	26.7	26.7	25.5	20
Wind	>15-100kW	24.1	24.1	23.0	20
Wind	>100-500kW	18.8	18.8	18.8	20
Wind	>500kW-1.5MW	9.4	9.4	9.4	20
Wind	>1.5MW-5MW	4.5	4.5	4.5	20



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# PV for free? Hold on!



1. Who's paying for the kit? Is that in full? Over lifetime?
2. Who gets (a) the feed-in tariff, (b) the export tariff, (c) the 'free' electricity? Is the exported electricity going to be measured or 'deemed'?
3. Who owns the kit? And is that **all** of the kit – ie meter, wires inside the building etc – or just the kit on the roof and/or in the back yard?
4. Who pays for maintenance and repairs
5. Who's insuring the kit? Against what?
6. Who's liable if the installation does damage to my building, my electrics, my family, my neighbour's building, my neighbours?
7. Are they in effect **lending** you money to do this, either as a loan or a hire purchase deal?
8. What happens if the new owners don't want to 'inherit' the deal?
9. Are you giving any performance guarantees for the kit? And what happens if it stops working and generating feed-in tariffs for you? Is that your risk?
10. Who pays for removing the kit and making good if (a) my roof needs repairing or (b) the kit is damaged beyond repair?
11. Who is responsible for addressing any planning issues or electricity distribution company notification requirements? Who pays any associated costs?
12. Do I need to let my mortgage company and/or buildings insurer know that this installation has taken place? Will I need their permission?



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# Find out more



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Or Partners at Dacorum Borough Council
- **Feed in Tariffs**  
Department of Energy and Climate Change -  
<http://www.decc.gov.uk/>  
Ofgem - <http://www.ofgem.gov.uk/>  
Energy Saving Trust - <http://www.energysavingtrust.org.uk/>



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